Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109

COMMENTS OF BANDWIDTH.COM, INC. ON SECTIONS XVII. L-R

Greg Rogers
Deputy General Counsel
Bandwidth.com, Inc.
4001 Weston Parkway
Cary, NC 27513
(919) 439-5399

February 24, 2012

TABLE OF CONTENTS

SUMMARY

Bandwidth.com, Inc. ("Bandwidth.com") continues to believe that a fundamental effect of imposing outdated rules designed for the public switched telephone network ("PSTN") on Internet Protocol ("IP") networks and services will be delayed investment, innovation and consumer benefits that will otherwise flow from the transition to a communications marketplace based upon IP technology. Already, Bandwidth.com has witnessed that the near term effect of the recent *USF/ICC Reform Order*[1] on intercarrier compensation ("ICC") for voice over Internet Protocol ("VoIP") traffic has been the reinforcement of legacy network interests rather than movement toward an all-IP future. After initiating a reform schedule for terminating access, the Commission must now work to avoid exacerbating the delay of the inevitable transition to an all-IP future. Imposing additional outdated PSTN concepts on IP networks and services in this rulemaking would be a mistake. Rather, the Commission must provide incentives for carriers to invest in change instead of re-trenching and aggressively clinging to the PSTN. Legacy PSTN-based network providers will not voluntarily migrate off of legacy network arrangements if they can still extract exceptional returns from outdated networks that serve captive audiences. Bandwidth.com recognizes that a flash-cut to an all-IP market is not feasible; however, at the same time, it is critical that the Commission put in place a federal structure that establishes an aggressively managed transition toward that end.

There are legitimate regulatory and public policy justifications for retaining Commission oversight of voice communications, including consumer protections and promoting competition

[1] *In the Matter of Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform - Mobility Fund,* Report and Order and Further Notice of Proposed Rulemaking, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, , FCC 11-161 (rel. Nov. 18, 2011) ("*USF/ICC Reform Order"* and *"FNPRM*").

that inures consumer benefits. In order to have a competitive communications market, there must be threshold-level requirements that carriers interconnect on fair and non-discriminatory terms and in a manner that promotes IP networks rather than perpetuating legacy Time Division Multiplexing ("TDM") infrastructures. To avoid the discriminatory effects of self-interested behaviors, there must be a regulatory "backstop" structure that embraces competitive and non-discriminatory principles to fully capture the promise of IP technology. Said differently, the Commission cannot simply allow to the biggest players to carve up the marketplace and control the pace of change as they see fit. Traffic volumes indeed speak volumes when it comes to traditional negotiating leverage in the interconnection arena.[2] However, in an IP-to-IP world traffic volume comparisons are considerably less relevant. In order to spur innovation and investment, the network interconnection structure cannot continue to be held hostage to PSTN-based concerns that are vastly diminished in an all-IP environment.

A readily available and predictable IP interconnection methodology that allows carriers to offer services that embrace the flexibility and technological advantages of IP ought to the fundamental goal of this proceeding. The Commission has initiated a process to eliminate barriers to IP-to-IP interconnection and advance the fundamental public policy goals of the 1996 Act[3] to spur competition and innovation. The pro-competitive public policy positions that drove the passage of the 1996 Act must continue to be protected and nurtured, perhaps more than ever. If the biggest and the strongest are allowed to control the pace of change in the marketplace, then the consumer benefits that flow from fair competition and innovation will most assuredly suffer. Nowhere are the economic advantages of IP technology more acute than with respect to the vastly more flexible network architectures it enables as compared to the PSTN. In this proceeding the Commission should move ahead aggressively with mandates and incentives that support competition, investment and innovation in the marketplace by reducing all switched access rates

[2] *USF/ICC Reform Order and FNPRM* at ¶ 1318; Comments of CenturyLink (filed April 18, 2011).
[3] Telecommunication Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 ("1996 Act" or "Act")

elements uniformly and by adopting threshold requirements that will provide the proper economic incentives for legacy carriers to move forward to IP interconnection in a non-discriminatory manner.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109

COMMENTS OF BANDWIDTH.COM, INC. ON SECTIONS XVII. L-R

Greg Rogers
Deputy General Counsel
Bandwidth.com, Inc.
4001 Weston Parkway
Cary, NC 27513
(919) 439-5399

February 24, 2012

I. INTRODUCTION

Bandwidth.com operates a facilities-based nationwide network entirely optimized for IP. Bandwidth.com's all-IP network powers a wide array of "Voice 2.0" innovators throughout the United States. These innovators range from established, well-known national VoIP providers to successful cutting edge start-ups that are experiencing rapid adoption of their products and services. The National Broadband Plan[4] offers a blue-print for advancing the technological and economic benefits inherent in broadband Internet services, and Bandwidth.com urges the Commission to stay true to this vision by embracing bold reform focused on an IP future while avoiding an extended transition rooted in legacy network issues.

As the Commission is well aware, the current public switched telephone network ("PSTN") interconnection and ICC regime is an obstacle standing in the way of the inevitable evolution to broadband and IP services.[5] However, there continues to be relatively widespread disagreement as to how far and how fast the Commission should move to reform the regulatory structure controlling intercarrier relationships. Yet, to even a casual observer this transition is long overdue.

---

[4] Federal Communications Commission, *Connecting America: The National Broadband Plan* (rel. Mar. 16, 2010) ("National Broadband Plan").

[5] *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, , 26 FCC Rcd 4554, 4559, ¶ 6 (2011) ("*USF-ICC Transformation NPRM*") ("The ICC regime, too, was designed for a world of voice minutes and separate long-distance and local telephone companies. It has had the effect of rewarding carriers for maintaining outdated infrastructure rather than migrating to Internet protocol (IP)-based networks. Thus, current rules actually *disincentivize* something necessary for our global competitiveness: the transition from analog circuit-switched networks to IP networks.").

Bandwidth.com commends the Commission for pursuing ambitious, comprehensive, and well-reasoned reforms to an outmoded intercarrier system that is stifling innovation. Bandwidth.com looks forward to competing in a communications market that is fundamentally fair but streamlined to avoid unnecessary layers of regulatory complexity.[6] After conducting a multitude of proceedings over the course of the past decade, the Commission is now poised to act swiftly and decisively to spur broadband adoption.[7] So without further delay, the Commission must act aggressively to implement reforms that embrace free-market principles to force carriers' focus away from regulatory-driven and technically artificial PSTN-based behaviors and toward the consumer benefits that result from a truly fair and competitive IP marketplace.

Establishing an aggressive transition of all ICC and interconnection rate elements to a default uniform rate structure that reflects sound engineering principles based upon IP technology will alleviate many of the ongoing difficulties of the broken system. Conversely, delaying the transition or endorsing concepts rooted in the same PSTN-era regime that is rife with disputes will only serve to prolong the pain. The Commission must stay true to the fundamental principles of the National Broadband Plan and immediately implement clear, holistic and forward-looking reform in order to empower broadband end-users as quickly and effectively as possible.[8] The recommendations Bandwidth.com provides in these comments can be summarized as follows:

- Bandwidth.com supports additional interconnection and Intercarrier Compensation ("ICC") reform aimed at advancing the consumer benefits of IP technology;

---

[6] *USF/ICC Reform Order and FNPRM*, at ¶ 764.

[7] *See USF-ICC Transformational NPRM*, 26 FCC Rcd,at ¶ 501, note 714-718 ("Although the Commission has sought comment on a variety of proposals over the last decade to comprehensively reform intercarrier compensation, such efforts stalled, leaving the current antiquated rules in place.")

[8] *USF-ICC Transformation NPRM*, 26 FCC Rcd at 4701, ¶ 490 ("Specifically, the changes to the intercarrier compensation rules discussed below will: (1) modernize our rules to make affordable broadband available to all Americans and reduce waste and inefficiency by taking steps to curb arbitrage; (2) promote fiscal responsibility; (3) require accountability; (4) transition to market-driven and incentive-based policies.").

- Subjecting VoIP to traditional access charges impedes momentum toward innovation and should not be extended unnecessarily;
- Rules that establish baseline interconnection terms for non-discriminatory competitive market entry while embracing commercially negotiated interconnection contracts as the preferred alternative will be the most effective means to account for unique carrier-to-carrier considerations that establish the most technologically and economically sound network architectures possible.

II. REFORMS MUST EMBRACE IP TECHNOLOGY

Broad-based commitment to an IP future and the consumer benefits inured from such a commitment will occur more rapidly the sooner the Commission signals a full embrace of this shift. As the Commission stated in the *USF-ICC Transformational NPRM*, "[b]y modernizing our policies for a broadband world and reducing the underlying incentives for wasteful arbitrage, we believe these reforms will promote investment in IP facilities and free up valuable resources, provide certainty and ultimately encourage new broadband investment and innovation."[9] It is axiomatic that a clear commitment from the Commission to public policies that endorse an IP future for America through real and holistic reform will quicken the pace of investment and innovation across the industry. As the Commission acknowledged in the National Broadband Plan that launched these proceedings:

> Due in large part to private investment and market-driven innovation, broadband in America has improved considerably in the last decade. More Americans are online at faster speeds than ever before. Yet there are still critical problems that slow the progress of availability, adoption and utilization of broadband.[10]

In order to continue the growth of market-driven innovation, the Commission must transform the current voice-centric, TDM-based ICC and interconnection regime to one that favors IP-based solutions. The PSTN "tail" must not be allowed to continue to wag the ever-

[9] *USF-ICC Transformation NPRM*, 26 FCC Rcd at 4571, ¶. 44.
[10] National Broadband Plan at 3.

growing IP "dog."[11] One of "the critical problems that has slow[ed] the progress of availability, adoption and utilization of broadband"[12] is an ICC and interconnection system that fundamentally fails to account for IP technology. "Foot-dragging" must be eliminated in order to realize the full potential of an IP broadband marketplace and holistic interconnection and ICC reform can accomplish a fundamental shift of resources that will spur the innovation that is still waiting to be tapped.[13]

A. Clinging to the Geographic Limitations of the PSTN Harms the Public Interest

Historically, co-carrier interconnection rights and obligations as well as minute-of-use ("MOU") based treatments relied upon certain geographic assumptions. However, IP technology inherently undermines traditional geographic assumptions. The Commission recognized this fundamental truth in adopting a terminating ICC regime which eventually moves away from these historical geographic considerations. However, the near term effect of the imposition of the access charge regime on VoIP traffic has actually solidified out-dated geographic treatments with legacy network providers, making it increasingly difficult for carriers to negotiated commercially reasonable IP interconnection arrangements during the transition period.

In order to advance the goals of broadband deployment, an ICC and interconnection structure that is more akin to the Internet or wireless networks as opposed to the legacy networks must be aggressively implemented. In an IP-to-IP environment, traffic is exchanged at zero or near zero per-minute rates and parties are left to negotiate how to establish mutually beneficial

---

[11] Comments of Google Inc., *Further Inquiry into Certain Issues in the Universal Service-Intercarrier Compensation Transformation Proceeding*, DA 11-1348, CC Docket Nos. 01-92, 96-45; GN Docket No. 09-51; WC Docket Nos. 10-90, 07-135, 05-337, 03-109 at 17 (filed Aug. 24, 2011); *see also* Letter from Donna N. Lampert, Counsel for Google Inc., to Marlene H. Dortch, FCC, WC Docket No. 10-90 et al. (filed June 8, 2011); Comments of Google Inc., *tw telecom inc. Petition for Declaratory Ruling Regarding Direct IP-to-IP Interconnection Pursuant to Section 251(c)(2) of the Communications Act*, WC Docket No. 11-119 (filed Aug. 15, 2011) ("Estimates are that in just a few years, voice traffic is projected to be just a tiny fraction of all network traffic, with TDM voice a tiny tail on a very large dog.").

[12] *Id.*

[13] *See USF-ICC Transformational NPRM* at ¶ 506 & fn. 729 (citing Sprint Nextel Comments in re: NBP #25 at 7-10 (filed Dec. 22, 2009)).

network connections, leaving little room for arbitrage. Thus, the most effective way for the Commission to eliminate opportunities for gaming the system is not to embolden legacy interests, but rather to provide the proper incentives that will allow market forces to drive mutually beneficial network interconnection and ICC structures that clearly account for the benefits of IP technology. While Bandwidth.com remains committed to open market principles, in order to be effective the Commission's rules must necessarily include default or "backstop" requirements aimed at reducing the disproportionate negotiating leverage associated with entrenched interests should carriers be unable to achieve mutually agreeable commercial terms.

B. IP-to-IP Interconnection

Bandwidth.com supports the Commission's inquiry into ways the Commission can encourage IP-to-IP interconnection.[14] The establishment of IP-to-IP interconnection is a critical component of the National Broadband Plan and a key to unleashing the complete set of consumer benefits which will flow from ubiquitous broadband Internet availability. Providers of communications services are adept at crafting and negotiating service agreements that contain mutually beneficial terms and conditions with other providers of communications services. Free-market contracting will work in the communications interconnection context if given the chance – particularly in an environment that has been rid of regulatory "arbitrage" opportunities. Through commercial negotiations parties will come to terms on the myriad of interrelated interconnection issues in a mutually beneficial manner. For example, in an IP-to-IP commercial agreement, parties will be able to customize where and how many POIs to establish according to each party's priorities. This differs dramatically from the PSTN-IP interconnection negotiations of today, where legacy PSTN providers still dictate terms based upon entrenched yet outdated technological considerations to the detriment of competitors and end-users alike.

[14] *USF/ICC Reform Order and FNPRM*, at ¶ 1335.

Bandwidth.com concurs with the Commission that the duty to negotiate in good faith does not depend on the underlying network technology. Bandwidth.com also concurs that "good faith" cannot be merely a theoretical concept if it is to be effective. Obligations to act in good faith must be applied to all carriers but it is those carriers that possess disproportionate market power in particular that must be subject to more concrete requirements for a competitive market to flourish. As the FNPRM acknowledges,[15] standing alone a "good faith" obligation is not likely to further enable IP-to-IP interconnection or competitive market entry. There must be a non-discriminatory avenue available to enter markets when carrier negotiations may break down. Otherwise, the fundamentals of the entire system are threatened. Commercial negotiations will yield the most efficient network routing and rating treatments in an IP-to-IP world, but because there remain wildly disproportionate levels of negotiating power centered upon the PSTN today, the Commission cannot prod the industry along with a completely hands-off approach.

As the Commission recognizes[16], some of the very same fundamental public policy concerns that were behind the implementation of the 1996 Act are again key principles as the industry transitions to IP-based networks. The Commission stated in 1996: "Negotiations between incumbent LECs and new entrants are not analogous to traditional commercial negotiations in which each party own or controls something the other party desires… The inequality of bargaining power between incumbents and new entrants militates in favor of rules that have the effect of equalizing bargaining power in part because many new entrants seek to enter national or regional markets."[17] Therefore, an important part of the transitional framework and ultimate backstop to protect against the inappropriate assertion of legacy PSTN requirements should be a Commission established dispute resolution forum for those instances where parties

[15] *See USF/ICC Reform Order and FNPRM* at ¶¶ 1337-1338.
[16] See *USF/ICC Reform Order and FNPRM* at ¶ 1337.
[17] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996,* Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, at ¶ 55 (1996) (subsequent history omitted)

cannot reach agreement on critical interconnection terms.

The PSTN will not disappear overnight and therefore we cannot expect the regulatory structure that is based around the PSTN to disappear in its entirety either. One way in which the Commission may borrow from relevant past experience in efforts to encouraging fair and non-discriminatory IP interconnection could be a structure similar to where ILECs were required to develop and offer standard Section 251/252 Statements of Generally Available Terms as a template for an interconnection agreement which were commonly referred to as "SGATs".[18]

The interconnection framework that will support the most efficient transition from today's Section 251/252 structure to a model that predominately relies upon IP technology and commercial negotiations, must include solutions for addressing legacy PSTN-based providers with disproportionate negotiating power that do not otherwise see adequate incentives to negotiate a transition to an IP network. Nevertheless, Bandwidth.com believes that Commission-driven incentives for legacy PSTN-based providers within a light-touch regulatory structure should be limited to situations that are focused upon the exchange of voice traffic between facilities-based carriers. The scope of the Commission's rules regarding interconnection and ICC for the exchange of VoIP between facilities-based carriers should be narrowly tailored so as to avoid any suggestion that it would regulate information services that have heretofore thrived in a largely unregulated environment. Assuming the Commission follows the traffic classifications that it has adopted in the *USF/ICC Reform Order* and then clearly articulates that the rules adopted are aimed squarely at addressing issues related to interconnected VoIP and voice services that have historically been offered on the PSTN, then any potential overlap with the backbone market should be avoided.

The regulatory structure in place today requires that providers become licensed "carriers"

[18] *Id.* at ¶¶ 130-32.

in order to avail themselves of the rights and obligations set forth under the Act. This same fundamental structure should remain in place as the industry embarks on the orderly transition to an all-IP market. By continuing to mandate "certification," facilities-based providers would become subject to the authority of the Commission and would therefore be required to abide by a common set of interconnection and ICC regulations. In the voice services marketplace, this structure continues to make sense and will remain necessary during a transition period to an all-IP environment as well.

C. POIs and "The Edge"

Nowhere are the economic and technological advantages of IP technology more apparent than with respect to the vastly more flexible architectural alternatives available through IP-to-IP interconnection. IP networks are deployed with edge and core network servers and routers that replicate the switching functionality of the PSTN but without the same rigid geographically-bound hub and spoke architectural or MOU-based requirements. In order to spur legacy network owners to embrace these advantages, the Commission must provide clear directives aimed at breaking down the economic barriers that are inherent in the PSTN. For example, while the proposal from Sprint and T-Mobile to establish no more than one POI in each state[19] represents an enormous architectural advancement relative to today's PSTN mandates, the truth is that one POI per state is an artificial geographic limitation on IP network capabilities as well. One POI per state may well be a valid interim standard for default IP interconnection requirements, but IP networks are capable of operating just as effectively with far fewer POIs. Enabling carriers to operate networks based upon sound IP engineering principles will yield far-reaching consumer benefits. Legacy carriers that continue to insist upon operating outdated networks must not be

[19] Letter from Kathleen O'Brien Ham, Vice President, Federal Regulatory Affairs for T-Mobile, and Charles W. McKee, Vice President, Government Affairs of Sprint Nextel Corp. to Marline H. Dortch, Secretary, FCC, CC Docket No. 01-92 (filed Jan. 21, 2011); *USF/ICC Reform Order and FNPRM* at ¶ 1372.

allowed to dictate terms that impose artificial PSTN-based costs on other carriers that have embraced IP if there is to be true reform.[20] Thus, Bandwidth.com strongly supports those proposals that would create the proper incentives to reform by implementing rules that would require any incumbent provider that continues to mandate network interconnection with an IP-based carrier based upon considerations fundamentally rooted in the architecture of the PSTN bear the cost of such architectural demands should commercial negotiations fail.[21] The Commission should strive to streamline regulatory decisions about where POIs and "Edges" are established rather than condoning complicated distinctions that dictate financial obligations that are fundamentally disconnected from the advantages of IP technology. Such an approach may ultimately manifest itself differently in a commercially negotiated contract, but without flattening the inherently uneven leverage between incumbents and competitors commercial negotiations will falter at the outset.

III. ROLE OF TARIFFS AND INTERCONNECTION AGREEMENTS

Bandwidth.com agrees with the Commission that generally continuing to rely on tariffs while also allowing carriers to negotiate alternatives during the transition is in the public interest because it provides the certainty of a tariffing option, while still allowing carriers to better tailor their arrangements to their particular circumstances and the evolving marketplace than would be accommodated by exclusively relying on "one size fits all" tariffs.[22] While the Commission appears to be primarily focused on issues related to access charges in this regard, as set forth

[20] *USF-ICC Transformational NPRM*, 26 FCC Rcd 4554, 4559, para. 6 ("The ICC regime, too, was designed for a world of voice minutes and separate long-distance and local telephone companies. It has had the effect of rewarding carriers for maintaining outdated infrastructure rather than migrating to Internet protocol (IP)-based networks. Thus, current rules actually *disincentivize* something necessary for our global competitiveness: the transition from analog circuit-switched networks to IP networks.").
[21] *USF/ICC Reform Order and FNRPM* at ¶ 1361.
[22] *USF/ICC Reform Order and FNPRM* at ¶ 1322.

above, Bandwidth.com believes that in addition to switched access tariffs, a "Template Interconnection Tariff"[23] or SGAT that represents a regulatorily-approved "backstop" or "default" interconnection offering could provide an efficient and non-discriminatory method to ensure competitive entry remains available. As carriers transition from the existing access charge regime to the section 251(b)(5) framework and a bill-and-keep ICC methodology, Bandwidth.com agrees that they will increasingly rely primarily on negotiated interconnection agreements rather than tariffs to set the terms on which VoIP traffic is exchanged.[24] Yet during this transition, incumbent PSTN-based carriers will continue to have disproportionate bargaining power, and so there must be a "backstop/default" set of rules that allow for non-discriminatory terms and conditions for competitive IP-based providers in markets across the country. Further, such an approach could also be implemented quickly because it is familiar to both CLECs and ILECs by virtue of past experience with SGATs.

The FNPRM seeks comment on whether the FCC needs to forbear from tariffing requirements in Section 203 of the Act and Part 61 of its rules to enable carriers to negotiate alternative arrangements pursuant to the Order.[25] Bandwidth.com believes that forbearance can be an effective and readily available method for streamlining any interconnection rules for IP interconnection, while encouraging mutually beneficial commercial agreements. Exercising forbearance authority would also allow the Commission to retain its legal authority to oversee market-based arrangements at the same time. Further, forbearance would not require legislative activity – which will enable the transition to occur more quickly and will also disallow those that have far greater access to the legislative process from ultimately creating an uneven playing field. An "SGAT tariff" combined with clear Commission forbearance could be the basis for an effective streamlined regulatory structure that retains the necessary minimum set of regulations to guard against the improper exercise of uneven bargaining leverage, while fundamentally

[23] *USF/ICC Reform Order and FNPRM* at ¶ 961 n. 1975.
[24] *USF/ICC Reform Order and FNPRM* at ¶ 1322.
[25] *Id.*

embracing the benefits of free-market principles. Because the competitive marketplace has successfully operated according to commercially negotiated arrangements historically, Bandwidth.com does not support adopting new requirements to include competitive LECs or other competitive interconnecting service providers within regulatory mandates to interconnect beyond the requirement to engage in good faith negotiations.

IV. TRANSITIONING ALL RATE ELEMENTS TO BILL-AND-KEEP

A. Originating Access Charges

The FNPRM's suggestion that originating access should also be eliminated at the conclusion of the transition to the new intercarrier compensation regime is valid.[26] In order to encourage and enable the transition to an IP-to-IP interconnection market, PSTN-based access revenue streams need to be eliminated.[27] Otherwise, those that maintain disproportionate leverage in PSTN-IP interconnection negotiations will lack incentive to invest in IP networks or negotiate in a manner that embrace the technological advantages that IP represents. In order to transition away from originating access and toward an IP-based market as quickly and efficiently as possible, the Commission must avoid adopting separate schedules for separate access rate elements. A uniform implementation of broad access charge reforms will prevent confusion that will result in billing disputes and arbitrage behaviors.

The FNPRM also highlights the question of originating access treatment related specifically to 8YY originated minutes. As set-forth above and in prior comments, Bandwidth.com supports an aggressive transition away from increasingly archaic PSTN-based ICC treatments in order to spur IP-to-IP interconnection. Particularly with respect to 8YY services, originating access should transition along with terminating access. As the Commission

[26] *USF/ICC Reform Order and FNPRM* at ¶ 1298.
[27] *See USF/ICC Reform Order and FNPRM* at ¶ 736.

correctly notes, "in the case of 8YY traffic, because the calling party chooses the access provider but does not pay for the toll call, it has no incentive to select a provider with lower originating access rates."[28] The Commission has found that the traditional bases for the "Calling Party Network Pays" system have eroded.[29] Because originating access associated with 8YY traffic is comparable to the set of considerations that have already led to the reform of terminating access charges, the Commission should move forward swiftly with uniform reform of originating access as well.

B. Transport and Termination

The FNPRM seeks comment on the proper transition structure for switched access rate elements that fit into the category of "Transport and Termination" beyond the reform it adopted in the *USF/ICC Reform Order*. The Commission states that such elements must be transitioned to bill-and-keep at the end state, as required by the order, but seeks comment on the final transition to bill- and-keep for these charges. Here again, the industry and consumers will be best served if the transition occurs in conjunction with the already established terminating compensation schedule. Otherwise, individual rate elements will become the source of arbitrage efforts and billing disputes as a function of an unnecessarily complicated rate structure. In addition, further complicating the structure of the access regime in this case will only serve to bolster the interests of legacy network providers who are steeped in the inner-workings of the PSTN.

As Sprint pointed out, maintaining high transport rates provides a substantial *dis*-incentive for carriers to transition to more efficient networks.[30] Instead, carriers that already charge inflated, supra-competitive rates for transport are permitted to continue to reap the benefits of those rates when the depreciated cost of facilities involved is at or near zero. This is not an efficient structure nor is it one that encourages the deployment of new IP facilities instead of

[28] *USF/ICC Reform Order and FNPRM* at ¶ 1303.
[29] *USF/ICC Reform Order and FNPRM* at ¶ 744.
[30] Comments of Sprint Nextel Corporation at 15-16 (filed Aug. 24, 2011).

propping up legacy facilities.

Among other things, the Commission seeks comment on the appropriate transition for tandem switching and transport charges, when should tandem switching and transport charges be transitioned (i.e., at a pace that coincides with the current transition for end office switching, or after the conclusion of the transition for end office switching), whether there are any unintended consequences that may arise in connection with a longer transition for these charges, and whether any delay would impede the transition to IP-to-IP interconnection.[31] Bandwidth.com agrees with those carriers that have identified the fact that delay primarily favors the interests of ILECs by virtue of their continued use of outdated network elements and TDM technology.[32] To accomplish the Commission's stated goals, the incentives should be in the opposite direction, toward IP-to-IP. If there is to be a continuing set of rate elements for tandem switching and transport, then it must be competitively neutral at the very least and rate reductions should be implemented according to the same schedule as other terminating access charges.

Finally, The Commission also requests comment on whether these charges will become obsolete in an all-IP network, and if so, how it would impact possible reform. The likelihood is that as long as the Commission enables and encourages market-based commercial contracting, parties will develop more rationale compensation mechanisms in an all-IP environment. However, the inevitable obsolescence of certain PSTN-based concepts does not mean that the Commission's reforms should remain silent on how transport and termination charges will be sunset in an orderly fashion. Rather the opposite is true – unless the Commission establishes a structure that clearly reduces access elements holistically, legacy carriers will cling ever tighter to the current set of PSTN-based financial considerations and delay broadband adoption further

[31] *USF/ICC Reform Order and FNPRM*, at ¶¶ 1308-1309.
[32] *See, e.g.*, Ex Parte Letter of Mary McManus, Barry J. Ohlson, and Terri B. Natoli to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al. (filed Oct. 17, 2011); Comments of Sprint Nextel Corporation at 15-16 (filed Aug. 24, 2011).

C. Transit

Bandwidth.com concurs with those that have identified the risk that incumbents will have incentives to exploit their market power over the course of a transition to a uniform ICC regime.[33] Bandwidth.com also concurs with the Commission's suggestion that "transit is the functional equivalent of tandem switching and transport…" [34] Therefore, an appropriate end-state for transit service should closely track the reform measures that are adopted for tandem switching and transport charges. IP services break down the traditional geographic bases for traffic classification. In order to provide proper incentives that embrace the full capability of IP technology, the Commission's reforms must clearly and forcefully remove PSTN-based traffic distinctions and the regulatory treatments associated with such distinctions. Because the end-state of the Commission's ICC reform is a bill-and-keep structure and because IP-to-IP interconnection does not require distinguishing between "local" and "toll" traffic, it follows that transit reforms should closely track tandem switching reform which in turn should follow the Commission's terminating access reform schedule. The Commission should consistently work to quash legacy PSTN-based incentives that are driven by geographic considerations that will become irrelevant in an IP-to-IP market. Therefore, including transit charges in its next round of ICC reforms is a good example of how the Commission can successfully prod the industry in the right direction.

[33] See *USF/ICC Reform Order and FNPRM*, at ¶ 1312 (citing Comcast *August 3 PN* Comments at 8-10; Cox *August 3 PN* Comments at 13-15; NCTA *August 3 PN* Comments at 19-20)
[34] *USF/ICC Reform Order and FNPRM* at ¶ 1311.

IV. CONCLUSION

A decade-long record clearly demonstrates the need for swift Commission action to reform all aspect of the current ICC and interconnection regimes. As an innovative competitive IP provider, Bandwidth.com is encouraged by the Commission's efforts to implement ICC reform. At the same time however, Bandwidth.com is discouraged that some segments of the industry have responded to the Commission's initial attempts by retreating to tried and true PSTN-based positions rather maintaining momentum toward the promise of IP-to-IP interconnection. The transition to a broadband IP communications marketplace is long overdue and continued efforts aimed at maintaining the status quo must be deemed unacceptable. Therefore, Bandwidth.com continues to encourage the Commission to follow through to assert its jurisdiction under the Act in order to implement holistic reforms that embrace IP technology and free-market principles. With bold action, the Commission can succeed in shifting carriers' focus away from business models that are dependant upon regulatory-driven PSTN-based revenue streams and toward the public interest benefits that will accompany broadband expansion and IP service availability.

The Commission has developed a road-map for an IP future in the context of terminating ICC, it must now layer on the remaining components of the regulatory structure that ensures the efficient exchange of IP traffic among competing carriers. Innovation and investment that promote consumer benefits through open markets must be the Commission's focus. As the Commission moves ahead with holistic reform, it must stay true to the goals of the National Broadband Plan to realize the benefits of a broadband future as quickly and effectively as possible.

Bandwidth.com encourages the Commission to maintain positive momentum and prevent last-ditch efforts to delay the inevitable. The industry is poised for the shift forward to VoIP but

firm directives remain necessary. Allowing PSTN concepts to continue to impede VoIP adoption are not in the public interest. "Foot-dragging" by those that cling to the past must be eliminated in order to realize the full potential of a free IP broadband marketplace. IP-focused reforms will trigger a fundamental shift of industry resources and spur enormous innovation that is still waiting to be tapped.

Respectfully submitted,

/s/ *Greg Rogers*

Deputy General Counsel
Bandwidth.com, Inc.
4001 Weston Parkway
Cary, NC 27513
(919) 439-5399

February 24, 2012